

SPECIFICATION AMENDMENTS

Replacement Paragraph for the paragraph at page 3, lines 44-52:

Where the organism supplying the biological material is a unicellular or simple multicellular organism, typically a group of whole organisms will be used; however, well-known biochemical techniques (for example, cellular disruption followed by density gradient centrifugation) can be used to extract from any uni- or multi-cellular organism(s) a group of organelles or other cellular parts for use as the biological material, groups of the same structures or groups of a variety of structures. For example, various membrane-bound structures such as nuclei, mitochondria, inclusion bodies, vacuoles, vesicles such as lysosomes and peroxisomes, and/or plastids such as chloroplasts and chromoplasts, may be obtained in such a manner.

Replacement Paragraph for the paragraph at page 5, lines 40-48:

In one embodiment, the biological materials are obtained from a prokaryote or prokaryotes (including archaeabacteria, cyanobacteria, and heterotrophic bacteria). In another embodiment, the biological materials are obtained from a eukaryote or eukaryotes, preferably plants or fungi, more preferably plants. In this embodiment, any plants may provide the biological material, including single-celled plants, non-vascular plants, non-flowering vascular plants (whether spore plants or seed plants), and flowering plants; examples of such plants include: mosses, club moss, ferns, horsetails, liverworts, gymnosperms, monocots, dicots, and other plants (algae, which are classified as protists, may also be considered as plants in this regard).

Replacement Section for the section (two paragraphs) at page 7, lines 32-52:

Prior to extraction, the subject and control biological material(s) may be prepared. Such preparation may include, e.g., freezing, drying, lyophilizing, cutting, chopping, shredding, crushing, grinding, blending, homogenizing, sonicating, and other techniques known in the art that may be used to convert the form of the biological material to that desired for use in extraction. Alternatively, the biological material(s) may be pre-treated before extraction by removing a portion or portions therefrom and reserving the portion(s) for the purpose of, e.g., future repeat tests or alternative testing. For example, where the biological material is a macroscopic tissue, such as a plant leaf, the tissue may be pre-treated to reserve surface metabolites (such as, e.g., epidermal or cuticular oils and waxes), in order to assay these by an alternative test: the tissue may be transitorily dipped into an organic solvent such as hexane to remove these surface metabolites. Likewise, a portion of the biological material, e.g., a cut-out portion of leaf tissue, may be reserved from the remainder to be extracted.

In the process of extracting the subject and control biological material(s), the contacting of the biological material(s) with the extractant may be carried out in one or more of various ways. Soaking of the biological material in the extractant to produce, e.g., a leachate may also be used. Supercritical fluid extraction may be used. Other techniques that may be used in the process of contacting include, e.g., cutting, chopping, shredding, crushing, grinding, blending, homogenizing, and sonicating. In any embodiment, the extraction will result in production of original fluid extracts of the control and subject biological material(s).